

37. The method of Claim 35, wherein the adjusting assists in the warm start operation by adjusting the communication device settings to match current channel characteristics.
- 5 38. The method of Claim 35, wherein a warm start comprises a resumption of communication device operation after a period of inactivity.
- 10 39. The method of Claim 35, wherein the communication device comprises a device operating under a digital subscriber line standard.
40. The method of Claim 35, wherein the sequence signal comprises a sequence signal based on an M-sequence.
- 15 41. A method for determining whether to initiate a warm start operation or a cold start operation for one or more communication devices, the method comprising:
generating a sequence signal at a first device;
transmitting the sequence signal to a second device;
receiving the sequence signal at the second device;
correlating the sequence signal at the second device;
analyzing the correlated signal at the second device to determine current channel
20 characteristics;

comparing the current channel characteristics to at least one prior channel characteristic; and

selecting between a warm start operation and a cold start operation based on the comparing.

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42. The method of Claim 41, further including transmitting a sequence signal to the first device from the second device.

43. The method of Claim 41, further including adjusting at least one setting of the second device based on the analyzing.

10 44. The method of Claim 41, wherein selecting comprises selecting a warm start operation if the comparing reveals the channel characteristics have not changed beyond a threshold level and selecting a cold start operation if the comparing reveals the channel characteristics have changed beyond a threshold level.

15 45. The method of Claim 41, wherein the cold start operation takes a longer period of time to complete than the warm start operation.

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46. The system for initiating a warm start operation comprising:

means for generating a sequence signal, the sequence signal of the type predetermined to initiate a warm start;

means for transmitting the sequence signal to a remote communication device to

5 initiate communication;

means for detecting a signal and processing a signal to determine if a signal is a request for a warm start operation;

means for initiating a warm start operation if the means for detecting determines a signal is a request for a warm start operation.

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47. The system of Claim 46, wherein the means for detecting a signal comprises a correlator.

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48. The system of Claim 46, wherein the means for generating a sequence signal comprises a scrambler.

49. The system of Claim 46, further including mean for generating and transmitting an acknowledgement signal.

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